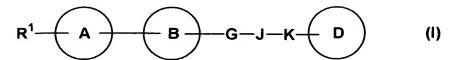
CLAIMS

1. A compound of formula (I):



wherein R¹ represents aliphatic hydrocarbon optionally having substituent(s), ring A represents a cyclic group comprising at least one nitrogen atom optionally having further substituent(s) besides R¹,

ring B represents a cyclic group optionally having substituent(s) and is attached to ring A via a bond,

G represents a bond or a spacer comprising 1-4 atoms in the main chain,

J represents a spacer having a hydrogen-bond accepting group optionally having substituent(s),

K represents a bond or a spacer comprising 1-4 atoms in the main chain, and ring D represents a cyclic group optionally having substituent(s), which may form a ring together with a substituent on J,

a salt thereof, an N-oxide thereof, a solvate thereof or a prodrug thereof.

- 2. The compound according to claim 1, wherein the hydrogen-bond accepting group in J is carbonyl, thiocarbonyl, imino, sulfonyl or sulfinyl, a salt thereof, an N-oxide thereof, a solvate thereof or a prodrug thereof.
 - 3. The compound according to claim 1,

wherein J is -CO-, -CONR²-, -NR²CO-, -OCO-, -COO-, -CS-, -CSNR²-, -NR²CS-, -O-CS-, -CS-O-, -SO₂-, -SO₂NR²-, -NR²SO₂-, -O-SO₂-, -SO₂-O-, -S(O)-, -S(O)NR²-, -NR²S(O)-, -O-S(O)-, -S(O)-O-, or -C(=NR³)-,

wherein R² represents a hydrogen atom, optionally substituted aliphatic hydrocarbon or an optionally substituted cyclic group and R³ represents a hydrogen atom, cyano, optionally protected hydroxy, optionally substituted amino, optionally substituted aliphatic hydrocarbon or an optionally substituted cyclic group,

a salt thereof, an N-oxide thereof, a solvate thereof or a prodrug thereof.

4. The compound according to claim 1, wherein J is -N(COR⁴)-, -N(CONHR⁵)-, -N(COOR⁶)-, or -N(SO₂R⁷)-,

wherein R⁴, R⁵, R⁶ and R⁷ each represents a hydrogen atom, optionally substituted aliphatic hydrocarbon or an optionally substituted cyclic group,

a salt thereof, an N-oxide thereof, a solvate thereof or a prodrug thereof.

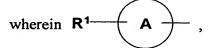
5. The compound according to claim 1, wherein the cyclic group represented by ring D is a C3-15 mono-, bi- or tri-cyclic aromatic carbocyclic ring which may be partially or completely saturated, or a 3-15 membered mono-, bi- or tri-cyclic aromatic heterocyclic ring comprising 1-5 of heteroatom selected from oxygen, nitrogen and sulfur which may be partially or completely saturated,

a salt thereof, an N-oxide thereof, a solvate thereof or a prodrug thereof.

6. The compound according to claim 1, wherein the cyclic group represented by ring D is a C3-15 mono-, bi- or tri-cyclic aromatic carbocyclic ring, or a 3-15 membered mono-, bi- or tri-cyclic aromatic heterocyclic ring containing 1-5 of heteroatom,

a salt thereof, an N-oxide thereof, a solvate thereof or a prodrug thereof.

7. The compound according to claim 1, wherein

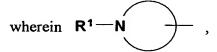


wherein all symbols have the same meanings as in claim 1,

wherein N is a cyclic ring comprising at least one nitrogen atom

and optionally having substituent(s) and R¹ has the same meaning as in claim 1, a salt thereof, an N-oxide thereof, a solvate thereof or a prodrug thereof.

8. The compound according to claim 7,

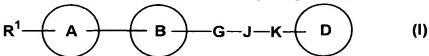


wherein all symbols have the same meanings as in claim 1,

is piperidine, piperazine, pyrrolidine, 1,4-diazepane, 1,2,3,6-tetrahydropyridine or 8-azabicyclo[3.2.1]octane ring optionally having substituent(s),

a salt thereof, an N-oxide thereof, a solvate thereof or a prodrug thereof.

9. A pharmaceutical composition comprising a compound of formula (I)



wherein R¹ represents aliphatic hydrocarbon optionally having substituent(s), ring A represents a cyclic group comprising at least one nitrogen atom optionally having further substituent(s) besides R¹,

ring B represents a cyclic group optionally having substituent(s) and is attached to ring A via a bond,

G represents a bond or a spacer comprising 1-4 atoms in the main chain,

J represents a spacer having a hydrogen-bond accepting group optionally having substituent(s),

K represents a bond or a spacer comprising 1-4 atoms in the main chain, and ring D represents a cyclic group optionally having substituent(s), which may form a ring together with a substituent on J,

a salt thereof, an N-oxide thereof, a solvate thereof or a prodrug thereof.

- 10. The composition according to claim 9, which is a chemokine receptor antagonist.
- 11. The composition according to claim 10, wherein the chemokine receptor is CCR1.
- 12. The composition according to claim 10, wherein the chemokine receptor is CCR5.
- 13. The composition according to claim 10, which is a medicament for the prevention and/or treatment of human immunodeficiency virus infectious disease, acquired immunodeficiency syndrome and/or organ rejection in transplantation.
- 14. The composition according to claim 10, which is a medicament for the prevention and/or treatment of multiple sclerosis and/or arthritis.

- 15. A method for the prevention and/or treatment of diseases induced by a chemokine receptor in a mammal, which comprises administering to an mammal an effective amount of the compound according to claim 1, a salt thereof, an N-oxide thereof, a solvate thereof or a prodrug thereof.
- 16. Use of the compound according to claim 1, a salt thereof, an N-oxide thereof, a solvate thereof or a prodrug thereof, for the manufacture of a medicament for the prevention and/or treatment of the diseases induced by chemokine receptors.
- 17. A medicament comprising the compound according to claim 1, a salt thereof, an N-oxide thereof, a solvate thereof or a prodrug thereof, and one or more selected from the group consisting of a protease inhibitor, a reverse transcriptase inhibitor, a fusion inhibitor, an HIV integrase inhibitor, a chemokine inhibitor, a steroidal drug, interferon, an immunosuppressant, an aldose reductase inhibitor, a cannabinoid-2 receptor agonist, adrenocorticotropic hormone, a metalloproteinase inhibitor, a non-steroidal anti-inflammatory drug, a prostaglandin drug, a phosphodiesterase inhibitor, a disease modifying anti-rheumatic drug, an anti-inflammatory enzyme drug, a cartilage-protecting drug, a T-cell inhibitor, a TNF- α inhibitor, an IL-6 inhibitor, an interferon γ agonist, an IL-1 inhibitor and an NF- κ B inhibitor.